UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF MASSACHUSETTS

HYBIR, INC., *Plaintiff*, v. VEEAM SOFTWARE CORPORATION, *Defendant*.	Case No: 1:20-cv-10329-MPK

DEFENDANT VEEAM'S MEMORANDUM IN SUPPORT OF ITS AMENDED RULE 12(B)(6) MOTION TO DISMISS PLAINTIFF HYBIR'S COMPLAINT UNDER 35 U.S.C. § 101

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Defendant Veeam Software Corporation ("Veeam") moves under Fed. R. Civ. P. 12(b)(6) to dismiss the Complaint filed by Plaintiff Hybir, Inc. ("Plaintiff") (D.I. 1). Dismissal of all counts is warranted because the patents asserted in this action, U.S. Patent Nos. 8,051,043 ("the '043 patent"), 9,037,545 ("the '545 patent"), and 9,679,146 ("the '146 patent") (collectively, "the patents-in-suit"), are all invalid under 35 U.S.C. § 101 ("Section 101") for failing to claim patentable subject matter.

I. Introduction

The patents-in-suit attempt to claim exclusive rights to an age-old idea. Indeed, since the start of modern retail commerce, merchants have sought to make inventory management more efficient. In pursuit of this objective, merchants came up with various ways of describing goods in shorthand to help determine where items were located and avoid unnecessary duplication of items in storage. For example, dating back at least to the 1980s, businesses have used electronic shorthand descriptors, such as barcodes or Universal Product Codes (UPCs) to manage inventory across locations. As computers became more available and affordable, this type of inventory management software became ubiquitous. And, long before the advent of electronic descriptors, individuals *manually* created and used shorthand descriptors to organize and manage large quantities of items or information. Just one notable example is library card catalogue systems – first, librarians manually generated descriptors to track the locations of items, which later evolved into the use of numerical descriptors (call numbers) such as the Dewey Decimal Classification system in the late 1800s, and, finally, shifted to the use of electronic descriptors (online cataloging) by the 1980s.

The patents-in-suit – which are all related and share a common specification – reflect nothing more than an attempt by Plaintiff to monopolize this very abstract idea of comparing "descriptors" of items to avoid duplication and manage inventory in storage. But, the mere use

of shorthand electronic descriptors in well-known technological contexts cannot support a finding that any of the following concepts are patentable subject matter:

- eliminating the storage of duplicate files (the '043 patent);
- synchronizing files across computers on a network (the '146 patent); or
- managing storage of electronic files on backup servers (the '545 patent).

In each of these contexts, the claims of the patents-in-suit fail to recite any new technology, and simply reference generic, well-known components. Nothing in the shared specification of the patents-in-suit teaches the public how to create any innovative system or method. The claims merely recite the use of shorthand descriptors to perform standard, routine functions that were previously accomplished manually, such as "receiving," "comparing," "determining," "generating," "transmitting," and "reporting" in relation to descriptors. Moreover, even the generation of the "descriptors" themselves – created via well-known algorithms – is nothing more than the use of wholly generic computer technology. *See, e.g.*, '043 patent, 10:10-13 ("Examples of a descriptor generating algorithm that may be utilized include, without limitation, an MD5 hash, SHA256, ssh256, crc-32, and any other hash generating algorithm known in the art"), 10:13-22, and 16:18-32. Such elements cannot render the claims patentable.

Contrary to Plaintiff's self-serving assertions (*see, e.g.,* D.I. 1, ¶ 15), the patents-in-suit do not provide any specific solution to any specific problem. Rather, they merely "claim the building blocks of human ingenuity," and add nothing to "transform" an age-old concept "into a patent-eligible invention." *Alice Corp. v. CLS Bank, Int'l*, 573 U.S. 208, 217, 221 (2014) (internal quotation marks omitted). Quite simply, using shorthand descriptors to compare lists of items (the claimed "inventories") is precisely the type of "well-understood, routine, conventional activit[y]" ineligible for patent protection under 35 U.S.C. § 101. *Id.* at 225. Section 101

demands "more than simply stating [an] abstract idea while adding the words 'apply it.'" *Id.* at 221 (quoting *Mayo Collab. Servs. v. Prometheus Labs., Inc.*, 566 U.S. 66, 72 (2012)).

The Court should follow well-established precedent and dismiss Plaintiff's claims. Notably, the Federal Circuit and district courts around the country have routinely held that analogous claims to those asserted here are patent-ineligible, including at the Rule 12 stage. *See, e.g., Content Extraction & Transmission LLC v. Wells Fargo Bank, N.A.*, 776 F.3d 1343, 1347 (Fed. Cir. 2014) (claims "drawn to the basic concept of data recognition and storage" were ineligible); *In re Morinville*, 767 F. App'x 964, 969 (Fed. Cir. 2019) (finding the claimed method ineligible because it "amounts to no more than comparing stored and input data and applying business rules") (internal citation omitted). Resolving this issue on a motion to dismiss, as the Federal Circuit has "repeatedly recognized . . . is possible and proper," will avoid burdening the Court and the parties, and will obviate unnecessary future suits on these ineligible patents. *FairWarning IP, LLC v. Iatric Sys., Inc.*, 839 F.3d 1089, 1097 (Fed. Cir. 2016). Indeed, "subject matter eligibility is *the* primal inquiry, one that *must* be addressed at the outset of litigation." *Ultramercial, Inc. v. Hulu, LLC*, 772 F.3d 709, 718 (Fed. Cir. 2014) (Mayer, J., concurring) (emphasis added). Otherwise, there is no means of deterring the practice of filing "vexatious infringement suits," where "nearly identical patent infringement complaints [are filed] against a plethora of diverse defendants," with the goal of extracting a settlement. *Id. at 719.* This is precisely what Plaintiff admits it has done in its own Complaint – filing this case quickly on the heels of extracting a settlement in an action for infringement of these very patents. (D.I. 1, ¶ 12.)

Accordingly, and for the reasons set forth below, Defendant Veeam respectfully requests that the Court end this pattern by dismissing Plaintiff's complaint at the outset and holding the patents-in-suit invalid under 35 U.S.C. § 101.

II. Background

A. The Patents-in-Suit

The patents-in-suit, though issued on different dates, are all entitled "Group Based Complete and Incremental Computer File Backup System, Process and Apparatus," and all share a priority date and common specification. In that specification, the patentees describe the subject matter of the purported invention: a "vastly more efficient method of backup" of electronic data files, "in terms of processing time, network bandwidth, and storage requirements," which generates and uses shorthand "descriptor[s] . . . to uniquely identify [each] file in a shared file repository." '043 Pat., Abstract.

The patents-in-suit do not add anything inventive to this broad and abstract idea of describing items in shorthand and using those descriptions to avoid duplication and manage inventory in storage. Rather, the patents-in-suit broadly claim the use of that abstract idea for "provid[ing] a more efficient method and system for managing files, file rights, and file identity," *see* '043 Pat., 1:8-11, 2:12-14, via the use of generic and well-known computer components. No specialized equipment, software, or other technology is required; notably, the specification disclaims the need for these items by stating that "the invention is not limited to use with any particular type of communication system or configuration of system elements." *Id.*, 4:4-8 (emphasis added). All that is needed are generic items such as "communication network[s]," *id.* at 4:51-65, "communication devices," *id.* at 4:66-5:6, 7:15-60, "enterprise server[s]" or "backup server[s]," *id.* at 5:7-31, and "data storage medium[s]," *id.* at 6:65-7:3.

Importantly, the patents-in-suit fail to establish that the claimed use of "descriptors" to manage inventories of electronic data is anything more than an application of an age-old abstract idea using a generic computer system. First, the means of generating "descriptors," which may take the form of a "cryptographic signature," fails to constitute any technological advancement

by the inventors, and merely incorporates routine means and well-known processes in the field of electronic data management:

> Examples of a descriptor generating algorithm that may be utilized include, ***without limitation***, an MD5 hash, SHA256, ssh256, crc-32, ***and any other hash generating algorithm known in the art***. The descriptor generating algorithm may be either a cryptographic or non-cryptographic algorithm depending upon the desired level of security. Additional data may be provided in the descriptor generating algorithm filed [] outlining the various inputs that may be included in the preparation of the descriptor. For example, a descriptor may be generated based simply upon the actual file data. Portions of metadata may also be included as inputs to the descriptor generating algorithm.

'043 Pat., 10:10-21 (emphasis added). All that is required is "[t]he application of the descriptor algorithm" – which could be any of the many pre-existing algorithms known long before the filing of the patents-in-suit – "[to] create[ ] a unique descriptor of each file." *Id.* at 8:23-24. Second, the manner in which the "descriptors" are used fails to incorporate anything inventive. These "common short-hand representative[s] of the electronic file[s] throughout the group-based backup system," are merely used to compare files across different inventories to determine whether the file already exists in a given inventory, or whether a particular user has rights to access that file. *See, e.g., id.* at 10:24-27, 11:16-48, 13:23-37. This is no different than the centuries-old and commonplace practice of using descriptive words to create an index, using information about library materials to create a card catalog, or using barcodes and UPC codes to identify retail products in inventory.

Because Plaintiff's complaint alleges infringement of claim 1 of each of the patents-in-suit and those claims that depend from each claim 1, (D.I. 1, ¶¶ 27, 42, 58), claim 1 of each of the patents-in-suit is representative for purposes of the instant motion. As set forth below, the text of each claim relies on the fundamental concept of using shorthand "descriptors" to

determine whether an item is duplicative of a file already present in a given system:

- Claim 1 of the '043 patent is drawn to a method of "[1] receiving . . . a first inventory of electronic data . . . compris[ing] at least one descriptor . . . [2] comparing . . . at least one descriptor of the first inventory to a list of descriptors associated with a second inventory . . . [3] determining that a first descriptor . . . of the first inventory substantially matches a second descriptor from the list of descriptors associated with the second inventory; and [4] reporting . . . that electronic data associated with the first descriptor is already stored." ('043 Pat., claim 1.);

- Claim 1 of the '146 patent is drawn to the converse, a method of "[1] receiving . . . [a] first inventory . . . compris[ing] at least one descriptor . . . [2] comparing . . . at least one descriptor of the first inventory to a list of descriptors associated with a second inventory . . . [3] determining that a first descriptor . . . does not match a second descriptor from the list of descriptors associated with the second inventory; [and] [4] storing . . . the electronic data that is uniquely identified by the [descriptor]." ('146 Pat., claim 1); and

- Claim 1 of the '545 patent specifies that the "descriptor" is a "cryptographic signature," but likewise is drawn to a method of "[1] generating . . . a cryptographic signature value for each file in the first set of files . . . [2] generating . . . a first inventory [which] includes the cryptographic signature value generated for each file . . . [3] transmitting the first inventory . . . and [4] causing one or more files . . . to be transmitted . . . upon determining that the cryptographic signature values . . . allows access to the one or more files." ('545 Pat., claim 1.)

In short, the patents-in-suit describe an age-old problem (inventory management) and simply provide a series of functional steps that purport to solve the problem through the use of generic computer hardware and well-known operations. They claim the very hallmark of patent-ineligible subject matter.

III. Legal Standards

A. Rule 12(b)(6): Motions to Dismiss under Section 101

To survive a motion to dismiss, a plaintiff must "state a claim to relief that is plausible on its face." *Bell Atl. Corp. v. Twombly*, 550 U.S. 544, 570 (2007). Patent eligibility under Section 101 is a question of law based on underlying facts and "frequently has been [ ] resolved on a Rule 12(b)(6) or (c) motion." *SAP Am., Inc. v. InvestPic, LLC*, 898 F.3d 1161, 1166 (Fed. Cir. 2018); *see also First-Class Monitoring, LLC v. United Parcel Serv. of Am., Inc.*, 389 F.

Supp. 3d 456, 471 (E.D. Tex. 2019) (Bryson, J., Circuit Judge, by designation) (collecting cases). In resolving the question of patent eligibility at this juncture, district courts are "not obliged to accept" representations of the patentee that are "inconsistent with the [ ] patent." *Athena Diagnostics, Inc. v. Mayo Collab. Servs. LLC*, 915 F.3d 743, 756 (Fed. Cir. 2019); *see also Secured Mail Sols. LLC v. Universal Wilde, Inc*., 873 F.3d 905, 913 (Fed. Cir. 2017) ("[A] court need not accept as true allegations that contradict matters properly subject to judicial notice . . . , such as the claims and the patent specification.") (internal quotation marks omitted). Rather, courts must focus on whether the claims at issue can pass muster under the Supreme Court's two-part test.

B. Patent Eligibility under 35 U.S.C. § 101

Under 35 U.S.C. § 101, "laws of nature, physical phenomena, and abstract ideas" may not be patented. *Diamond v. Chakrabarty*, 447 U.S. 303, 309 (1980). Abstract ideas are ineligible for patent protection, even if limited "to a particular technological environment," because a patent would "effectively grant a monopoly" over the broad concept. *Bilski v. Kappos*, 561 U.S. 593, 610-12 (2010). To determine whether an asserted claim is patent-eligible under Section 101, courts follow the two-step analysis established by the Supreme Court in *Mayo*, 566 U.S. 66, and *Alice* 573 U.S. 208. First, the court must determine whether the claims are "directed to" a patent-ineligible concept.[1] *Alice*, 573 U.S. at 217. If so, the inquiry under step two asks whether the claims include an "inventive concept" that ensures the patent is directed to

[1] Step one is a legal determination that "must focus on the language of the Asserted Claims themselves." *Synopsys, Inc. v. Mentor Graphics Corp*., 839 F.3d 1138, 1149 (Fed. Cir. 2016). Particular details or embodiments in the patent specification cannot establish patentability "if those details are not claimed." *ChargePoint, Inc. v. SemaConnect, Inc*., 920 F.3d 759, 769 (Fed. Cir. 2019).

something "significantly more than" the ineligible abstract idea itself. *Id.* at 218. If not, the claim is invalid. *Id.*

To satisfy step one, "a claimed invention must embody a concrete solution to a problem having 'the specificity required to transform a claim from one claiming only a result to one claiming a way of achieving it.'" *Interval Licensing LLC v. AOL, Inc.*, 896 F.3d 1335, 1343 (Fed. Cir. 2018); *Am. Axle & Mfg., Inc. v. Neapco Holdings LLC*, 939 F.3d 1355, 1363 (Fed. Cir. 2019) (claims must recite "mechanisms for achieving [a] desired result"). Notably, "a claim is not patent eligible merely because it applies an abstract idea in a narrow way." *BSG Tech LLC v. BuySeasons, Inc.*, 899 F.3d 1281, 1287 (Fed. Cir. 2018). And, claims drawn to purported technologic improvements satisfy the requirements of § 101 only if the "focus of the claims" is on a "specific asserted improvement in computer capabilities," not an abstract concept "for which computers are invoked merely as a tool." *BuySeasons*, 899 F.3d at 1286 (internal quotation and citation omitted).

To satisfy step two of the *Alice* / *Mayo* test and survive a § 101 challenge, claims directed to an abstract idea must supply an "inventive concept sufficient to transform the claimed abstract idea into a patent-eligible application." *Alice*, 573 U.S. at 221 (internal quotation marks omitted). In conducting this inquiry, the Court need not accept a patentee's "repeated characterization of its inventions as 'technical innovations.'" *Bridge & Post, Inc. v. Verizon Commc'ns, Inc.*, 778 F. App'x 882, 894 (Fed. Cir. 2019). Rather, a claim limitation that merely recites "conventional, routine and well understood applications in the art" does not supply an "inventive concept" and cannot confer patentability. *Ariosa Diagnostics, Inc. v. Sequenom, Inc.*, 788 F.3d 1371, 1378 (Fed. Cir. 2015).

IV. Plaintiff's Complaint Should be Dismissed Because the Patent Claims are Not Directed to Patent-Eligible Subject Matter.

A. The Patents-in-Suit are Drawn to the Abstract Idea of Using Shorthand Descriptors to Manage Inventory.

For computer-based claims, such as those asserted here, the first step of the *Alice* / *Mayo* test analyzes whether the claims are directed towards a "specific means or method that improves the relevant technology" – which may pass muster under Section 101 – or instead are drawn to a "result or effect that itself is the abstract idea and merely invoke[s] generic processes and machinery." *Apple, Inc. v. Ameranth, Inc.*, 842 F.3d 1229, 1241 (Fed. Cir. 2016) (internal quotation marks and citation omitted). The claims at issue here fall squarely within the latter category.

As in *Alice* and its progeny, the Court need only focus on the fact that "[s]tripped of excess verbiage," the subject matter claimed by the patents-in-suit is straightforward. *Affinity Labs of Tex., LLC v. DIRECTV, LLC*, 838 F.3d 1253, 1256-57 (Fed. Cir. 2016). As illustrated above, the claims of each of the respective patents-in-suit quickly reduce down to the bare idea of using shorthand descriptors to manage the storage of electronic items, for either (1) avoiding unnecessary duplication of files (the '043 patent), (2) synchronizing files across a network (the '146 patent), or (3) ensuring user access rights to electronic files on backup servers (the '545 patent). Indeed, the very fact that the patents-in-suit claim three distinct applications of the same fundamental concept demonstrates that they "recite little more than the same abstract idea." *Content Extraction*, 776 F.3d at 1348; *see also Affinity Labs.*, 838 F.3d at 1259 (finding the patent ineligible and noting that "the specification underscores the breadth and abstract nature of the idea embodied in the claims"). And, the application of the abstract idea to these three distinct contexts does nothing to save them; "the prohibition against patenting abstract ideas cannot be circumvented by attempting to limit the use of the idea to a particular technological

environment." *Alice*, 573 U.S. at 222 (quoting *Bilski*, 561 U.S. at 610-611) (internal quotations and citations omitted).

By their own admission, the inventors sought to apply the basic concept of using shorthand descriptors to any number of technological contexts, not to narrowly claim particular, specific solutions to known technologic problems. Specifically, the stated goal of each of the patents-in-suit is "to provide a more efficient method and system for managing files, file rights, and file identity." *See, e.g.*, '043 Pat., 2:12-14. But Plaintiff cannot monopolize the concept of efficient electronic file management, and the patent claims do not recite any specific means of achieving efficiency beyond directing an abstract idea to that particular context. Under such circumstances, the claims fail the § 101 threshold test. *See Alice*, 573 U.S. at 225 (noting that claims are abstract when they "do [no] more than simply instruct the practitioner to implement the abstract idea . . . on a generic computer"); *Epic IP LLC v. Backblaze, Inc.*, 351 F. Supp. 3d 733, 740 (D. Del. 2018) (invalidating the asserted claims under § 101 because they "recite the concept, but not the way to implement it."). Indeed, none of the claims of the patents-in-suit require a new or unconventional machine or process for identifying and comparing electronic files across a computer network—they simply generate a list of descriptors (for electronic files stored on one computer), compare that list of descriptors with a second list of descriptors stored elsewhere, and take some appropriate action after that comparison has been made (*e.g.*, the electronic files are backed up on a remote server). Because these methods are indistinguishable from those performed manually by individuals for centuries, and do not provide any particular technologic solution, the patents-in-suit lack any patentable backstop to ensure that Plaintiff does not monopolize the entire field of inventory management.

Comparison of the relevant claims to cases involving similar computer-implemented

methods confirms that the patents-in-suit claim an abstract idea. In fact, courts have routinely invalidated patents drawn to this very abstract idea – as claims "that merely collect, classify, or otherwise filter data" are ineligible under Section 101. *Intellectual Ventures I LLC v. Erie Indem. Co.*, 850 F.3d 1315, 1327 (Fed. Cir. 2017) (noting as ineligible claims drawn to "classifying data [ ] and storing it based on its classification," and "data collection, recognition, and storage"); *see also, e.g., Specialized Monitoring Sols., LLC v. ADT LLC,* 367 F. Supp. 3d 575, 586 (E.D. Tex. 2019) ("the idea of classifying and storing the data in a particular manner [is] an abstract idea"); *Boar's Head Corp. v. DirectApps, Inc.*, No. 2:14-cv-01927- KJM-KJN, 2015 WL 4530596, at *9 (E.D. Cal. July 28, 2015) ("the computerized performance of cataloguing, maintaining and setting aside particularly relevant information is directed to an abstract idea akin to what librarians and data organizers have always performed").

In re TLI Communications LLC Patent Litigation, 823 F.3d 607 (Fed. Cir. 2016) is particularly illustrative. There, the Federal Circuit invalidated claims under § 101 that were "simply directed to the abstract idea of classifying and storing digital images in an organized manner." *Id.* at 613. In rendering its determination, the Federal Circuit recognized that the patent at issue was directed to an abstract concept because "the specification makes clear that the recited physical components merely provide a generic environment in which to carry out the abstract idea…." *TLI Commc'ns*, 823 F.3d at 611. Like the patent-ineligible claims of *TLI*, the patents-in-suit attempt to claim essentially the same subject matter – organizing "electronic data" or "electronic files," which may constitute "digital images." *See* '043 Pat., 2:34-36 ("As used herein, 'electronic data' may correspond to electronic files, portions of electronic files . . . or any other piece of electronic data."); *see also* '545 Pat., claim 1 (requiring a descriptor of electronic "files"). And, while the claims here may list some "concrete, tangible components" such as a

"backup server," a "client device," and a "storage medium," they nevertheless remain drawn to an abstract idea because the shared specification of the patent-in-suit broadly emphasizes, in the same way the patent specification at issue in *TLI* emphasized, that "the present invention is applicable to improving data management as it applies to file systems, computer data backup, and computers in general." *Compare* '043 Pat., 1:6-11 *with TLI*, 823 F.3d at 611 (holding that the specification of the patent at issue "underscores that [the claim was] directed to an abstract concept" because it "emphasi[zed] that the present invention 'relates to a method for recording, communicating, and administering a digital image'" as opposed to something narrower.) The patents-in-suit have a substantively identical focus, if not one even more broad and abstract, than the claims struck down in *TLI*.

Moreover, earlier this year, in *PersonalWeb Technologies LLC v. Google LLC*, No. 5:13-cv-01317-EJD, 2020 WL 520618, at *10 (N.D. Cal. Jan. 31, 2020), the Northern District of California invalidated under § 101 three patents drawn to the same fundamental abstract idea as the patents-in-suit: the generation and comparison of "descriptors" of electronic data to avoid duplication and manage inventory in storage. Specifically, in *PersonalWeb*, the court found that patents drawn to (1) "using a known, content-based identifier to control access to data" (as in the '545 patent); (2) "retrieving and delivering copies of data items across a network of servers" (as is the '146 patent); and (3) "identifying copies of identical data items in a network of servers based on the data's unique content-based identifier and deleting one of the duplicate data copies" all centered around the same, unpatentable concept of using "unique content-based identifiers." The *PersonalWeb* patents involved "a system that replaces conventional file names with unique content-based identifiers" by applying a "hash function" such that "an item's unique content creates a unique identifier" – essentially identical to what is claimed in the patents-in-suit. 2020

WL 520618, at *1. Indeed, the use of "descriptors" (*i.e.*, the "assigned identifier") to compare against "another content-based identifier," before taking action (*i.e.*, providing access or avoiding duplication), *id.* at *10, is, almost word for word, the same abstract method described in the patents-in-suit, which uses a "descriptor," such as an "MD5 hash," to "uniquely identify [a] file," and uses that descriptor to perform routine data management functions such as "comparing," "transmitting," or "reporting" those descriptors. (*See* '043 patent at Abstract, 10:10-21.)

As was the case in *PersonalWeb*, this Court need only recognize that the claimed generation and comparison of descriptors is merely "'computerizing' a conventional process known in the art." 2020 WL 520618 at *12:

> For example, librarians often locate books based on a 'call system' where they assign books unique identifiers based on call numbers, which change dependent on a book's volume, etc. Using a 'master call list,' a librarian can compare the call numbers to see if multiple copies of the same text exist and purge books accordingly.

Id. In short, not only is there nothing *inventive* claimed by the patents-in-suit, but they are not even unique in describing the same, routine, abstract idea.

Nor is the creation of use of shorthand "descriptors" limited to library science – as the Court can take judicial notice of the fact that abstract ideas claimed in the patents-in-suit have long been employed by businesses and individuals to manage inventories of goods, or to ensure appropriate access to resources. *See Alice*, 573 U.S. at 220 (citing to extrinsic evidence in support of the conclusion that the claimed abstract idea was well known). Even before the advent of computer automation, it was common practice for a retail business to create a list of items it currently held in stock (using shorthand designations or product codes), compare that list to a list of items available from a wholesale supplier, identify those items absent from the

retailer's own inventory, and, if necessary, obtain those specific items from the supplier. That is, "humans have always performed these functions." *Content Extraction*, 776 F.3d at 1347; *see also BSG Tech LLC v. AutoZone, Inc.*, No. 2:16-CV-529, 2017 WL 2609066, at *4 (E.D. Tex. Mar. 30, 2017) ("Because the claim can be performed by the human mind or by using pen and paper, the claim is directed to an abstract idea.").

At the Court's request, Veeam reviewed the Federal Circuit's decision in *CardioNet, LLC v. InfoBionic, Inc.*, 955 F.3d 1358 (Fed. Cir. 2020), and has determined that its recent ruling in that case is both factually distinguishable from the facts at bar, and further supports a finding that the patents-in-suit are invalid under §101. In particular, in *CardioNet*, the patent claims at issue met the § 101 threshold because they were directed to a "*specific means or method that improves [a] relevant technology*," *id.* at 1368 (emphasis added) – as opposed to the broad and non-specific claims set forth in patents-in-suit in this action.

In *CardioNet*, the Federal Circuit found that the patent claims at issue included language that targeted an "improved cardiac monitoring device," as opposed to "a result or effect that itself is the abstract idea and merely invoke[s] generic processes and machinery." *Id.* at 1368. In so holding, the Federal Circuit relied on several distinct technological improvements embodied in the *CardioNet* patent, and, in particular, that the claimed technology more accurately detected the occurrence of atrial fibrillation and atrial flutter and allowed for more reliable and immediate treatment of these two medical conditions. *See id.* at 1366. And, the court relied on the lack of "record evidence undermining [those] statements." *Id.* at 1371. Notably, the *CardioNet* court found no evidence that doctors had ever previously performed the claimed diagnostic processes: "[n]othing in the record . . . suggests that the claims merely computerize pre-existing techniques." *Id.* at 1370.

The facts here are easily distinguishable from those in *CardioNet*. As an initial matter, the common written description of the patents-in-suit here fails to describe any technical "advantages offered by" the claimed methods of electronic file management. Rather, the expressly stated goal is to use generic technology to "to provide a more efficient method and system for managing files, file rights, and file identity," '043 Pat., 2:12-14, subject matter which is undoubtedly an abstract idea "for which computers are invoked merely as a tool." *Contra CardioNet*, 955 F.3d at 1373 (quoting *Enfish, LLC v. Microsoft Corp.*, 822 F.3d 1327, 1335-1336 (Fed. Cir. 2016)). Second and more important is the fact that, unlike in *CardioNet*, it is beyond dispute here "that the claims are directed to automating a longstanding or fundamental practice" and are thus ineligible under § 101. *CardioNet*, 955 F.3d at 1372-73.

Indistinguishable from efficient inventory management as performed by individuals and businesses for centuries, the claimed methods of the patents-in-suit purport to achieve increased efficiency solely by generating a list of shorthand descriptors for electronic files stored on one computer, comparing that list of descriptors with a second list of descriptors stored elsewhere, and then taking some appropriate action after that comparison has been made. Indeed, where, as here "the extrinsic evidence is overwhelming to the point of being indisputable," the Court can "take notice of that and find the claims directed to the abstract idea of automating a fundamental practice" – even after drawing all reasonable inferences in Hybir's favor. *CardioNet*, 955 F.3d at 1373-74.[2]

[2] While the *Alice* step one inquiry begins and ends with the patent itself, it is not "impermissible for courts to 'look outside the intrinsic evidence' as part of their *Alice* step one inquiry." *See CardioNet* at 1373. Instead, "[i]t is within the trial court's discretion whether to take judicial notice of a longstanding practice where there is no evidence of such practice in the intrinsic record." *Id.*

The inventors' own admissions only confirm the ineligibility of the patents-in-suit; as expressly stated in the common specification, the inventors sought to do nothing more than apply the abstract idea of using shorthand descriptors to a broad-based array of generic technological contexts, i.e., "managing files, file rights, and file identity." *See, e.g.*, '043 Pat., 2:12-14. The written description makes clear that the claims employ only known components – the claimed descriptors are generated using "an MD5 hash . . . [or] any other hash generating algorithm known in the art," *id.* 10:10-13 – and disclaims the use of any "particular type of communication system or configuration of system elements." *Id.* 4:4-8. As such, the concept at the core of the patents-in-suit represents the very hallmark of a patent-ineligible abstract idea. *See Alice*, 573 U.S. at 217 ("[W]e must distinguish between patents that claim the 'building blocks of human ingenuity' and those that integrate the buildings blocks into something more.") (internal citation and quotation omitted).

In short, *CardioNet* is inapposite, and the patents-in-suit remain patent ineligible, because they are an improper attempt to gain a monopoly over the abstract idea of efficient electronic file management -- not a specific, tangible improvement to the relevant technology.

B. The Patents-in-Suit Lack an Inventive Concept Sufficient to Transform the Ineligible Abstract Idea into a Patent-Eligible Invention

The second step in the *Alice / Mayo* test requires the Court to "search for an inventive concept—*i.e.*, an element or combination of elements that is sufficient to ensure that the patent in practice amounts to significantly more than a patent upon the ineligible concept itself." *Alice*, 573 U.S. at 217-18 (internal quotation marks omitted). The "mere recitation of a generic computer" does not constitute an "inventive concept" as a matter of law, *id.* at 223; nor do limitations reciting "well-understood," "routine," or "conventional activity," *Mayo Collab.*, 566 U.S. at 73; instructions to apply an idea "to a particular technological environment," *Bilski*, 561

U.S. at 610-11; or additions of other "token extra-solution activity," *Ultramercial*, 772 F.3d at 714. Otherwise, "an applicant could claim any principle of the physical or social sciences by reciting a computer system configured to implement [that] concept." *Alice*, 573 U.S. at 224.

By their own admission, the claims of the patents-in-suit are implemented on generic computer technology and, therefore, do not contain an inventive concept sufficient to confer eligibility. *See* '043 Pat. at 18:16-32 (claimed methods "can be readily implemented in hardware and/or software using any known or later developed systems or structures, devices and/or software by those of ordinary skill in the applicable art"). Elements that "either perform[ ] basic computer functions such as sending and receiving data, or performing functions 'known' in the art" are exemplars of "well-understood, routine activities previously known to the industry" that cannot confer patent eligibility. *TLI Commc'ns* 823 F.3d at 614.

Moreover, as discussed above, the generation and use of "descriptors" or "cryptographic signatures" to identify and compare electronic files stored across separate computers or backup systems also fails to provide an inventive concept because it is also generic, routine, and commonplace. *PersonalWeb*, 2020 WL 520618 at *13 (use of a "hash identifier" to "identify a specific data-file" is "a generic and routine concept"). The use of this generic feature for "comparing," "restricting access," and "de-duplicating" data likewise fails to transform the claims into something patent-eligible, because all three "are well-known and conventional functions of computers and data-management systems." *Id.* "Hence, none of the hardware recited by the claims offers a meaningful limitation beyond generally linking the use of the method to a particular technological environment," and allowing the three patents "to survive Section 101 would allow Plaintiff to monopolize the entire field of data-storage." *Id* (internal quotation marks omitted). Indeed, the shared specification of the patents-in-suit "limits its

discussion . . . to abstract functional descriptions devoid of technical explanation as to how to implement the invention," thus *guaranteeing* Plaintiff a monopoly on that abstract idea. *TLI Commc'ns*, 823 F.3d at 615.

In short, the patents-in-suit fail step two of the *Alice / Mayo* test, because they recite conventional components, to perform conventional tasks, at a broad level of generality. As the Eastern District of Texas has noted, "such patents, although frequently dressed up in the argot of invention, simply describe a problem, announce purely functional steps that purport to solve the problem, and recite standard computer operations to perform some of those steps." *Loyalty Conversion Sys. Corp. v. Am. Airlines, Inc.*, 66 F. Supp. 3d 829, 845 (E.D. Tex. 2014). Because all three asserted patents solely claim a patent-ineligible abstract idea, Plaintiff's Complaint should be dismissed on all counts.

C. The Dependent Claims of the Patents-in-Suit Similarly Fail

The dependent claims of the patents-in-suit add additional limitations to the context in which the claimed abstract idea may be applied, but they do not add specificity necessary to meet the § 101 threshold.[3] Because Plaintiff has specifically alleged infringement of claim 1 of each of the patents-in-suit, the Court can consider these claims representative, and conduct its § 101 analysis on those claims. *See, e.g.*, *Content Extraction*, 776 F.3d at 1348 (noting that "addressing each claim of the asserted patents [is] unnecessary" for purposes of analyzing patent eligibility); *Cleveland Clinic Found. v. True Health Diagnostics LLC*, 859 F.3d 1352, 1360 (Fed. Cir. 2017) ("Where, as here, the claims are substantially similar and linked to the same law of

[3] Plaintiff's Complaint chooses to specify claim 1 of each patent-in-suit, as well as claims depending from those claims, as representative of its infringement allegations. (*See, e.g.*, D.I. 1 at ¶¶ 25, 39, 56.) To the extent that Plaintiff later contends that any other claim of any patent-in-suit is infringed and argues that such claims are valid under 35 U.S.C. § 101, Veeam reserves the right to respond as all such claims are drawn to the same patent-ineligible abstract idea.

nature, analyzing representative claims is proper.") (internal quotation marks omitted).

In any event, none of the dependent claims of the patents-in-suit change the analysis by injecting any unconventional or unexpected computer components or techniques; rather, they simply apply the same abstract concept of creating descriptors for electronic files and comparing lists of these descriptors across computers on a network. "Thus, while these claims may have a narrower scope than the representative claims, no claim contains an 'inventive concept' that transforms the corresponding claim into a patent-eligible application of the otherwise ineligible abstract idea." *Content Extraction*, 776 F.3d at 1349. For example, in describing the generation of the claimed unique descriptors or cryptographic signatures, the dependent claims of the '043 and '545 patents-in-suit call for the use of a "*common* descriptor generating algorithm and *common* inputs to the common descriptor generating algorithm" ('043 Pat., claim 8 (emphasis added)) and "at least a 256-bit encryption algorithm" ('545 Pat., claim 5). The comparing of two lists is nonetheless an abstract idea, even if the entries on that list share a "common descriptor." The dependent claims of the '146 patent likewise fail to add anything inventive; claiming, *inter alia*, that the "distributed communication network" across which the invention may operate "comprises the Internet." '146 Pat., claim 4. There can be nothing inventive about applying the abstract idea in the context of the Internet.

The Federal Circuit has long held that an abstract idea itself cannot confer an inventive concept. *See BuySeasons*, 899 F.3d at 1290 ("It has been clear since *Alice* that a claimed invention's use of the ineligible concept to which it is directed cannot supply the inventive concept that renders the invention 'significantly more' than that ineligible concept."). Accordingly, each asserted dependent claim, like claim 1 of each patent, fails both steps of the *Alice* test and should be found invalid under Section 101.

V. Conclusion

For the foregoing reasons, Veeam respectfully requests that the Court dismiss Plaintiff's claims based on the patents-in-suit for failure to state a claim upon which relief can be granted. Because leave to amend the Complaint would be futile, due to the abstract and invalid nature of the patents-in-suit, Veeam requests dismissal with prejudice.

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Respectfully submitted,

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